National EPA-Tribal Science Council (TSC)
Conference Call Roll Call and Key Discussion Points
Monday, March 16, 2020
2:00–3:30 p.m. EDT

Roll Call

Tribal Caucus

___ Region 1: William (Billy) Longfellow (Passamaquoddy at Sipayik)
___ Region 1 *Alternate*: Trevor White (Passamaquoddy Tribe of Indian Township)
✓ Region 2: Neil Patterson (Tuscarora Nation)
✓ Region 4: Katie Tiger (Eastern Band of Cherokee Indians)
___ Region 4 *Alternate*: Jerry Cain (Mississippi Band of Choctaw Indians)
✓ Region 5: Jeff Mears (Oneida Nation), Chair
✓ Region 6: Craig Kreman (Quapaw Tribe)
___ Region 6 *Alternate*: Vacant
✓ Region 7: Page Hingst (Santee Sioux Nation of Nebraska)
✓ Region 7 *Alternate*: Misha Mazurkewycz (Ponca Tribe of Nebraska)
___ Region 8: Joshua Tweeton (Spirit Lake Tribe)
___ Region 8 *Alternate*: Allyson Two Bears (Standing Rock Sioux Tribe)
✓ Region 9: Carlotta (Carley) Whitecrane (Karuk Tribe)
___ Region 9 *Alternate*: Vacant
___ Region 10: Lee Juan Tyler (Shoshone-Bannock Tribes)
___ Region 10 *Alternate*: Kelly Wright (Shoshone-Bannock Tribes)
✓ Region 10 (Alaska): Alexis Wagner (Metlakatla Indian Community)

Support Personnel

✓ Monica Rodia, TSC Executive Secretary
✓ Kristen LeBaron, Support Contractor (SCG)

EPA Caucus

___ Region 1: Vacant
✓ Region 2: Kai Tang
___ Region 3: Regina Poeske
✓ Region 4: Dawn Taylor
___ Region 5: Luke Hullinger
___ Region 5 *Alternate*: Carole Braverman
✓ Region 6: Alexandra (Alexa) Olson
✓ Region 7: Christopher (Chris) Taylor
___ Region 7 *Alternate*: Amber Tilley
___ Region 8: Alfred Basile
___ Region 9: Rebecca Jamison
✓ Region 10: Lon Kissinger
✓ AIEO: Francine St. Denis
___ OAR: Amanda Kaufman
___ OCHP: Ted Coopwood
✓ OCSPP: Karen Hamernik
___ OCSPP *Alternate*: Amanda Hauff
✓ OLEM: David Charters
✓ OMS: Beth Jackson
___ ORD: David Jewett
✓ ORD: José Zambrana, Chair
✓ OW: Karen Gude

Invited Speakers and Guests

✓ Monia Ben-Khalid, EPA Region 8
✓ Valerie Blank, EPA ORD
✓ Justin Bleiler, EPA Region 8
✓ Andrew Byrne, EPA AEIO
✓ Brett Doyle, EPA ORD
✓ Andy Gillespie, EPA ORD
✓ Maggie Lavay, EPA ORD
✓ Paige Lieberman, EPA ORD
✓ Kate Sullivan, EPA ORD CEMM

Action Items

1. TSC members will read the monthly teleconference minutes to ensure that they are aware of current activities, news and action items.

Key Discussion Points

Roll Call and Distribution of Meeting Minutes

- Monica took the roll and explained that the February meeting minutes had been finalized and distributed.
- TSC members should read the minutes each month to ensure that they are aware of current activities, news and action items.

Caucus Report Outs

- José Zambrana reported that the EPA Caucus had met and discussed how to identify tribal needs related to per- and polyfluoroalkyl substances (PFAS) and how to gather information on indigenous research methodologies per Neil Patterson's request.
- Jeff Mears reported that the Tribal Caucus had met the previous week and had discussed the likelihood of being able to meet in Cherokee, North Carolina. As of the Tribal Caucus call, the Eastern Band of Cherokee Indians had canceled scheduled events and conferences through April and was considering canceling events in May.

TSC Spring Meeting in Cherokee, North Carolina

- Katie Tiger reported that the Eastern Band of Cherokee Indians plans on canceling scheduled events and conferences into the beginning of May.
- Tribal Caucus members reported on how coronavirus disease 2019 is affecting their tribes and regions, as well as the Tribal Representatives' ability to travel to the TSC face-to-face meeting:
    - The Santee Sioux Nation of Nebraska has implemented an indefinite travel ban.
    - The Metlakatla Indian Community has canceled all nonessential travel.
    - The Oneida Nation has a travel ban in place and declared a state of emergency on March 13, 2020.
    - The Karuk Tribe has instituted a travel ban; other Region 9 tribes have suspended all operations.

Science Seminar: Agency PFAS Overview and PFAS Action Plan, *Brett Doyle, Associate Administrator for Public Engagement and Environmental Education, EPA Office of Research and Development (ORD)*

- PFAS are a group of man-made chemicals that have been in use since the 1940s and are found in a wide array of consumer products (e.g., cookware, water repellants). PFAS also can be found at manufacturing and processing facilities, as well as at airports and military installations that use PFAS-containing firefighting foams.
- Because of their widespread use and environmental persistence, most people have been exposed to PFAS, which can accumulate and remain in the human body for long periods of time. Evidence indicates that exposure to certain PFAS may lead to adverse health effects.
- EPA's PFAS Action Plan was developed based on feedback from communities, as well as from information received from approximately 120,000 comments submitted to the public docket. This action plan is EPA's first multimedia, multiprogram and national plan for research, management and risk communication to address a challenge such as PFAS. During the past year, EPA has aggressively implemented the PFAS Action Plan and has made progress in all of the program areas.

- On December 19, 2019, EPA accomplished a key plan milestone by publishing a new validated method to accurately test for 11 additional PFAS in drinking water, for a total of 29. EPA proposed regulating perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) in drinking water on February 20, 2020. EPA also is asking for information and data on other PFAS, as well as seeking comment on potential monitoring requirements and regulatory approaches that the Agency is considering for PFAS.

- On December 19, 2019, EPA issued guidance for federal cleanup programs (e.g., Comprehensive Environmental Response, Compensation, and Liability Act [CERCLA]) that will be helpful to states and tribes. These recommendations provide a starting point for making site-specific cleanup decisions and will help to protect drinking water resources in communities across the country. EPA will engage in the regulatory development process for listing certain PFAS as hazardous substances under CERCLA. The Agency also will propose nationwide drinking water monitoring for PFAS during the next Unregulated Contaminant Monitoring Rule cycle.

- On December 4, 2019, EPA published an advance notice of proposed rulemaking in the *Federal Register* soliciting input on adding PFAS to the Toxics Release Inventory toxic chemical list. EPA issued a supplemental proposal on February 20, 2020, to ensure that new uses of certain persistent long-chain PFAS in surface coatings cannot be manufactured or imported into the United States without notification and review under the Toxic Substances Control Act.

- In terms of surface water protection, EPA plans to develop national Clean Water Act human health and aquatic life criteria for PFAS, as much as the data support such an effort. The Agency is examining available information about PFAS released into surface waters by industrial sources to determine whether additional study is needed for potential regulation in this area.

- EPA will be developing risk assessments for PFOA and PFOS to understand any potential health effects related to biosolids.

- In terms of research, EPA continues to—

    - Compile and assess human and ecological toxicity information on PFAS to support risk management decisions, including completing the Agency's peer-reviewed toxicity assessments of GenX chemicals and perfluorobutane sulfonate, developing peer-reviewed toxicity assessments for five important PFAS to support stakeholders, and applying high-throughput toxicology testing to study the toxicity of the larger PFAS universe.

    - Develop new methods to test for additional PFAS in drinking water, as well as assess and review treatment methods for removing PFAS from drinking water.

    - Validate analytical methods for surface water, ground water, wastewater, soils, sediments and biosolids.

    - Develop new methods to test for PFAS in ambient air and emissions.

    - Improve laboratory methods to discover unknown PFAS.

    - Develop exposure models to understand how PFAS moves through the environment and affects people and ecosystems, as well as develop tools to assist state and local officials with the cleanup of contaminated sites.

    - Evaluate data and the effectiveness of technologies for managing the end-of life disposal of PFAS-contaminated materials.

  - Fund research to generate science-based recommendations for managing PFAS in rural and agricultural areas, as well as research to expand the understanding of environmental risks posed by PFAS in water and waste streams.

- EPA continues to use enforcement tools, when appropriate, to address PFAS exposure in the environment and assists states in enforcement activities.

- EPA has been working collaboratively to develop a risk communication toolbox that includes multimedia materials and public messaging for federal, state, tribal and local partners.

- EPA collaborates with many federal and state partners (e.g., Environmental Council of the States, U.S. Department of Agriculture, U.S. Food and Drug Administration, National Institute of Environmental Health Sciences, U.S. Department of Defense) to take action.

- EPA's PFAS website at www.epa.gov/pfas contains tools and resources.

- Karen Hamernik asked whether water filters, such as those manufactured by Brita, will remove PFAS from drinking water. Brett Doyle and Andy Gillespie explained that removal depends on the specific compound. Some evidence exists that activated charcoal filters remove some PFAS when the filters are fresh.

- Karen asked how to dispose of scratched cookware. Andy responded that product-by-product guidance is not available currently. EPA is investigating landfills to understand how PFAS might be concentrated in the leachate or potentially leaking into the ground.

- Page Hingst asked how EPA is partnering with tribes to assist them in addressing PFAS issues. Brett responded that this issue would be the focus of the following presentation. ORD is attempting to distribute information to states, tribes and other stakeholders through its website.

- Page asked whether EPA will create a database that includes sites that manufacture, store, use and dispose of PFAS, as well as drinking water sources that have been contaminated. Brett replied that information about PFAS sites will be covered under Toxics Release Inventory once the 172 PFAS are added. Information on drinking water sites is available through the Superfund program.

- In response to a question from José, Andy explained that GenX is a group of PFAS chemicals created relatively recently by the Chemours Company to replace PFOA

Introduction to EPA ORD's PFAS Technical Support to States and Tribes, *Kate Sullivan, EPA ORD Center for Environmental Measurement and Modeling (CEMM)*

- Kate Sullivan explained that, to support EPA's PFAS initiative, ORD has launched numerous PFAS research efforts, including providing technical support to states and tribes.

- Measurement of PFAS is a significant barrier to evaluating the environmental presence and abundance of this constantly evolving broad family of compounds. Several laboratory analytical barriers exist, including the unknown nature of proprietary compounds and complex sample matrices.

- To provide technical support to states and tribes, CEMM has established external PFAS projects. CEMM scientific experts—who have researched and published on methods and applications to identify and quantify PFAS in a variety of media—are available to assist states and tribes in conducting studies that enable them to take action before the full complement of research addressing these compounds is available. ORD views these projects as an opportunity to learn from real-world situations that provide feedback into the office's other PFAS research programs.

- CEMM's measurement approaches include targeted analysis (researchers know exactly which chemicals they are looking for), suspect screening analysis (researchers have chemicals of interest), and nontargeted analysis (researchers have no preconceived notions of chemicals of interest).

- In terms of targeted analysis, ORD has laboratory standards for some PFAS and can quantify concentrations within complex mixtures; ORD also can determine concentrations of a somewhat broader set of compounds than presently available in commercial laboratories. ORD's targeted analyte list has grown with experience.

- In terms of nontargeted analysis, ORD can identify and determine the relative abundance of hundreds to thousands of PFAS compounds, as well as identify new or unique compounds at a location. ORD researchers provide scientific expertise to advise these types of studies.

- CEMM has provided various types of technical assistance to New Hampshire, New Jersey, North Carolina, Michigan and West Virginia on diverse media in a variety of settings and environments, including facilities, ground water, soil, surface water, air, plants, sediments and landfill leachate.

- To date, CEMM external projects have been located near a primary manufacturer or secondary user of PFAS compounds, often near larger rivers. Each project is designed by the state or tribe, which then collects the samples. CEMM provides laboratory analysis. CEMM external projects do not conduct risk assessments or interpret risk. The level of cross-media synthesis and inclusion of other activities (e.g., fate and transport modeling) can be discussed and negotiated.

- States and tribes must initiate a request through their EPA regions. Next, ORD scientists and project managers connect with the EPA region and state or tribal points of contact to develop a study plan. CEMM researchers engage in ongoing mid-project reviews and meetings. Following its analysis, CEMM develops data reports. Additional reports, journal articles and other publications are negotiated with the project partners.

- Communication of findings is an important consideration because of the high public interest in and priority and visibility of the PFAS topic. Laboratory results are provided to state and tribal partners via a formal data report that includes a transmittal letter from the CEMM Director. The state and tribal partners assume the responsibility for communicating findings to affected communities and water utilities, the public, and/or industry.

- Neil Patterson asked that ORD broadly share the information that the technical assistance being offered to states also is available to tribes so that they are aware. Kate promised to do so.

- Lon Kissinger commented that a staff member is interested in examining movement of contaminants into ground water and water supplies in relation to tribal landfills in Alaska. He asked whether such a project is suitable for a CEMM collaboration. Kate responded that it is a suitable project, and CEMM has performed testing on landfill leachates and can test in a variety of media. Lon should contact his Regional Science Liaison (RSL). If the RSL is unaware of these external CEMM projects, he or she should contact Kate.

- Lon asked whether the presentation could be distributed within EPA. Andy indicated that the presentation has been reviewed but only can be distributed within EPA.

Next TSC Teleconference

- The next TSC teleconference will be held on Monday, April 20, from 2:00 to 3:30 p.m. EDT.